

ABSTRACT

A boring such as a high accuracy boring is performed by inputting vibration only in the moving direction of a tool. The device comprises an ultrasonic horn (1) functioning as a vibrator, a punch (2) functioning as a boring tool for boring a work (W) which is an object to be bored, a guide bush (3) guiding the punch (2) in the moving direction, an elastic body (4) for retaining the punch (2) in a floating state on the guide bush (3), and a die (5) functioning as the boring tool formed in pairs with the punch (2). The punch (2) is floatingly retained by the elastic body (4) inside the guide bush (5), and vibration is applied to the punch (2) by the ultrasonic horn (1) to make the punch (2) jump toward the work (W) to strike the work (W) for boring the work (W).